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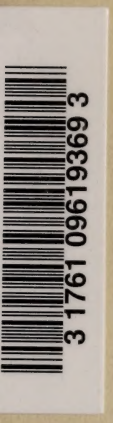

MENTAL ENERGY.

[by Edward Atkinson]

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MENTAL ENERGY.*

By EDWARD ATKINSON.

ACCORDING to the common conception, political economy is held to deal with material forces only; with land, labor and capital; with the production, distribution and consumption of the materials of human existence. These are food, clothing and shelter. It, therefore, bears the aspect of a purely material study of material forces. Yet no more purely metaphysical science exists, and there can be, in my view of the subject, no more ideal conceptions than those which are derived from the study of these purely material forces. Many of the errors commonly presented under the name of the 'claims of labor' have arisen from the limited and partial conception of the function of economic science.

We have become accustomed to deal with the so-called material forces of nature and with the physical work and labor of man under the general term of 'Energy'. What man does by his own labor or physical energy is to convert the products of land and sea, of mine and forest, into new forms from which he derives shelter, food and clothing. In a material sense all that any one can get in or out of life, be he rich or poor, is what we call our board and clothing. Such being the fact, what a man consumes is his cost to the community; what he spends yields to others the means of buying the supplies for their own wants; their consumption is then their cost to the community.

The physical forces of nature are limited. The earth is endowed with a fixed quantity of materials that we call gaseous, liquid and solid. It receives a certain amount of heat from the sun which, for all practical purposes, may be considered a fixed quantity of energy, even if in eons it may be exhausted. The physical energy of man is devoted to the transformation of these physical forces under the law of conservation; he can neither add to nor diminish the quantity. He can transform solid into gas and gas into liquid. He can, according to common speech, consume some of these products, but his consumption is only another transformation. His own body is but one of the forms of physical energy on the way toward another form. These elements of nature, formerly limited to earth, air and water, are now listed under many titles of what are called elements; I believe over sixty that have not yet been differentiated, but all may yet be resolved into a unit of force.

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You will observe that in our arithmetic we have ten numerals which can be divided into fractions. In our music we deal with seven notes and their variants. In our alphabet we have twenty-six letters. These factors correspond in some measure to what we call elements in nature. There is a limit to the number of combinations that can be made of the numerals and their fractions, to the notes of music and their variants, and of the letters of the alphabet; but in each case this limit is so remote as to be negligible, like the exhaustion of the heat of the sun. May we not deal with the elements of nature in the same way? Can any one prescribe a limit to their conversion and reconversion to the use of mankind? Is it not in these processes of conversion that we derive our subsistence?

We make nothing. All that we can do is to move something. We move the soil and we move the seed; nature gives the harvest. We direct the currents of falling water, of heat and of steam; nature imparts the force or energy to which man has only given a new direction. We are now imparting new directions to the force that we call electricity, and to what we call cold. What is the force from which we derive this power of transforming physical energy? May we not call it mental energy? Is not mental energy the factor in mankind by which he is differentiated from the beast? Does not man only accumulate experience, and is there any limit to the power of mind over matter?

If these points are well taken, mental energy is the fourth and paramount factor in providing for material existence, and the science of political economy, which deals with land, labor and capital, becomes a purely metaphysical science when we admit the force of mental energy into the combination.

We deal, as I have said, with sixty elements, so-called, more or less, but the unity of nature is the most important fact ever proved by science; the correlation of all forms of physical energy leading logically from the idea of manifold forces or gods to the unity of creation, necessarily ending in the conception of unity of a creator, or the one God. This modern development of mental science is but the Hebrew concept of the creation in a new form. The Hebrew race was the first one of the historic races with whom the unity of creation and the unity of the creator became an article of faith. I doubt not that it was in that concept and the power derived from it that the Hebrew intellect asserted its preëminence in the history of the world. According to that concept, to man is given "dominion over the fish of the sea and over the fowl of the air and over every living thing that moveth upon the earth." By what force does man hold dominion unless it is through his mental energy and his capacity to accumulate experience?

All the industrial arts are antedated by the industries of animals. The tailor finds his prototype in the tailor bird; the mason in the

wasp; the farmer in the agricultural ant; the bridge-builder in the spider; the weaver in the weaver bird; the creator of water power in the beaver, and so on. Yet no other animal except man has developed or extended any of these arts. No other animal except man has learned to make and use fire and not to run away from it.

If, then, man by his power of mental energy converts the original and crude forces with which the earth is endowed into new forms, and by giving them new direction increases his power of production of the means of his own subsistence and enjoyment of life, *does it not follow that creation is a continuous procession in which man is a factor?* "There is a divinity that shapes our ends, rough hew them as we may." The ideal of 'an honest God the noblest concept of man' becomes the converse of an honest man the noblest work of God—honest in a broad sense in his dealings with the forces of nature; true to his function.

There is a painful side to statistical and economic study. The penalty of being able to read what is written between the lines and the columns of the figures is the conclusion that after we have all done the best work that the present conditions of science will permit, the entire product barely suffices to keep mankind in existence; his fixed capital, so-called, is at the mercy both of time and of the inventor who substitutes better methods which at less cost of effort or labor yield more abundance to the community as a whole. But on the other hand, no matter how hard the struggle for existence may be, we find the promise of future abundance even in the insufficient product which has been derived from the application of science and invention up to date. Witness the relative progress of the last century as compared with all the previous centuries; then attempt to conceive what will be the condition of humanity a century hence, knowing, as we do, that the applications of science through mental energy now proceed in geometric progression, reversing the dogma of Malthus and leading to the concept of production unlimited, consumption limited.

If it be true that there is no conceivable limit to the power of mind over matter or to the number of conversions of force that can be developed, providing in increasing measure for the wants of the human body, it follows that pauperism is due to poverty of mental energy, not of material resources.

The next step in the development of this theory may be presented in this form: *No man is paid by the measure in time or physical effort, for the work or labor that he performs.* No man can claim payment in money or in kind on the ground that he has done a day's work of a greater or less number of hours. In all civilized countries we are members one of another; rich or poor; whether we work with our hands or our heads, or both combined. Material existence is supported by conversion of one form of physical energy into another. Social energy

is maintained by the exchange of one form of service for another. The measure of compensation is not the number of hours of labor put into the product or service. *The standard by which services are measured is what the buyer is saved from doing, not what the seller does.* Each of us might possibly be able to house, clothe and feed ourselves if we were cast upon an island possessing sufficient natural resources. If a hundred persons representing all the classes in society were wrecked upon such an island, each adult or each person above ten years old would probably find a way to house, feed and clothe himself. Why do we not house, feed and clothe ourselves, and why would not the hundred representatives of different classes wrecked on an island each do his own part of the work for himself only? Simply for the reason that men are either endowed from birth with different aptitudes, or different aptitudes are developed in their environment. Each one finds out that by delegating to another certain kinds of work he saves his own time and energy. Each one finds out what he can do for the next man, while the next man finds out what he can do for him.

There is in every transaction of life an unconscious cerebration or estimate of the services rendered to us, saving each of us mental or manual energy, whenever we buy any product or service from another. That unconscious cerebration affects the minds or habits or acts of both parties in every purchase and sale. There may be errors in regard to the service itself. The ignorant man will buy quack medicines that he had better let alone, but what he pays under the false impression of benefit to himself is his measure of what he hopes to save; while the quack medicine vender, taking advantage of the ignorance of others, filches from them the means of subsistence, even of wealth, under the pretext of service. As time goes on, however, false measures of service are eliminated with increasing intelligence, and true benefits constitute more and more the vast proportion of the exchanges.

The same ignorance which leads the masses of the people of every country to submit to military dictation, even in a bad cause, also leads to the wars of tariffs among nations by which prejudice and animosity are kept up. The false conception that in international commerce what one nation gains another must lose, is promoted by the advocates of protection, many of whom very honestly believe that through the exclusion of foreign goods domestic industry may be promoted, wholly ignoring the fact that arts and industries are developed by intelligence and not by legislation.

The advocates of bounties and of special legislation also ignore the fact that in this country, where mental energy is more nearly free in its action than in any other, manufactures and the mechanic arts develop in due proportion according to the age and the natural resources of the territory or state, nine-tenths or more of the occupations which

are listed under these titles being free in the nature of things from any possibility of foreign competition through the import of a product of like kind.

There may be nothing new in this essay, but until my own observation had led me to the conclusion that land, labor and capital were alike inert and incapable without the coördinating power of mental energy, the doubt continued to exist in my mind which is often expressed about the possibility of economic science having any real existence or right to the title. Also, until my own observation led me to the conclusion that the cost of a man to the community is what he consumes, and not what he secures in the way of income, the correlation of wealth and welfare had not been satisfactorily reconciled. I think that a very large part of what is written under the title of political economy would be greatly modified, and perhaps never have been written, had these concepts been derived by the writers from experience, as they have been in my own observation.

I have not much patience with abstract or *à priori* theories, my own method being one of observation, then referring to the various authorities in order to find out whether my observations or their abstract theories have been shallow and superficial.

Again, I find in the ideal of the continuous miracle of creation in which man is a factor the solution of many intellectual difficulties. In the face of such a perception of the methods of the universe, the larger part of the dogmas that have been put forth under the name of religion take their place with much of the historic rubbish which passes under the name of history. When it becomes plain that every man has his place in the progress of continuous creation, and is a factor in it; that nothing is constant but change; that there is no such thing as fixed capital; all the doubts and fears regarding the future of humanity vanish in the light of sure progress.

What greater stimulus can there be than for every man each in his own way rendering service for service, his objective point being only the welfare of himself and his family, when he attains the conviction that by so much as his mental energy adds to the sum of the utilities by which mankind lives, so may that part which he consumes and which represents his cost to the community be fully justified, even though it is earned with more apparent ease and less physical exertion than are called for from his poorer neighbors.

Incomplete as his studies were, I have always found in the 'Harmonies' of Frederic Bastiat the greatest encouragement and the greatest incentive to the work which I have undertaken under the name of political economy, leading more and more to the conviction that war and warfare, whatever influence they may have had in developing progress in the past, are now due to ignorance and greed; the war of

tariffs due to selfishness and stupidity; and the contest of labor and capital due to the errors of the ignorant workman and the ignorant capitalist alike. All interests are harmonious. The evolution of science and invention will surely bring them together on the lines of righteousness, peace and material abundance.

This essay has been condensed from a lecture prepared and given before a Clergymen's Club some months ago. In it I tried to show the necessary connection of religion and life as developed by economic study, the law of mutual service being the rule by which commerce lives and moves and has its being. This lecture has since been read to several clubs of very different types of men, and from the great interest excited I am led to think there is something in it fit for the student of facts and figures to say.

I may, therefore, venture to repeat the statement of two principles which are presented in this treatise, which I think have been seldom if ever fully developed in any of the standard works upon political economy. To my own mind these are basic principles which when applied may profoundly modify many of the concepts of students of economic science. I join in the view that the family is the unit of society, the home the center. The end of all production is consumption. Nothing is constant but change, and there is no such thing as fixed material capital of any long duration in the progress of time. The two principles which I have endeavored to enforce are as follows:

First. The cost of each person or head of the family is what he and his immediate dependents consume. His income, whether measured in terms of money or in products, is, therefore, no measure of his cost; what he distributes in payment for service rendered being expended by those who receive it in procuring the commodities which constitute their cost to the community.

Second. No person who is occupied or is in the employment or service of others is paid for what he does. His work may occupy long hours and may be applied to arduous manual labor, or it may be done in a short number of hours per day, with but little physical effort. Neither the hours nor the effort constitute any measure on which payment can be based. The measure of payment is fixed by the measure of the work saved to him who makes the payment, consciously or unconsciously estimated.

These two precepts or principles, coupled with the theory that there is no conceivable limit to the power of mind over matter, or to the number of transformations of physical energy to which direction may be given in the material support of humanity, bring the visions of the Utopians within the scope of a law of progress in material welfare to which no limit can be put in time or space.